DR-67

THE EFFECTS OF FEED ADDITIVES BASED ON THE WASTES OF POULTRY PROCESSING ON THE PRODUCTIVE PERFORMANCE AND MEAT QUALITY IN BROILER CHICKS

V. S. Lukashenko, I. P. Saleeva, V. G. Volik, D. Yu. Ismailova, E. A. Ovseychik, E. V. Zhuravchuk

Federal Scientific Center "All-Russian Research and Technological Poultry Institute" of Russian Academy of Sciences; 10 Ptitsegradskaya St, Sergiev Posad, Moscow Province, 141311 Russia.
E-mail: lukashenko@vnitip.ru

Abstract. The productive performance and meat quality were studied in broiler chicks fed diets supplemented with easily digestible animal derived protein additives produced by short-term intense thermal treatment and enzymatic hydrolysis of keratin- and collagen-containing wastes of slaughter and processing of poultry. The trial was performed on 4 treatments of Ross-308 broilers (50 birds per treatment, from 1 to 38 days of age). Control treatment was fed diet with fishmeal as animal protein source; in treatments 2 and 3 the fishmeal was substituted by enzymatic hydrolysate of feathers (keratin-containing wastes) with and without probiotic preparation, respectively; in treatment 4 the fishmeal was substituted by a mixture of enzymatic hydrolysates of feathers and collagen-containing wastes with probiotic preparation. It was found that average live bodyweight at slaughter age was higher in all experimental treatments in compare to control. The best results were found in treatment 3: live bodyweight at 38 days of age was significantly higher by 8.6% ($P<0.001$) while feed conversion ratio was lower by 6.7% in compare to control; this treatment also featured the best yields of carcass parts and meat quality.